The Role of Urine Polymerase Chain Reaction Test in Diagnosis of Genitourinary Tuberculosis

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Abstract

BACKGROUND:
The genitourinary system is one of he most common sites of infection in non-pulmonary tuberculosis (TB). The clinical symptoms and radiologic findings of urinary TB are nonspecific. Current diagnostic tests are of low sensitivity and labor-intensive. Therefore, this study was aimed to evaluate diagnostic value of urine PCR in genitourinary tuberculosis (GNTB).

METHODS:
This was a descriptive study on 33 patients with confirmed genitourinary TB. Demographic data, clinical symptoms, laboratory and radiologic findings were collected. For each patient, three consecutive early morning urine specimens were examined by PCR. The diagnostic value of PCR in mycobacterium tuberculosis (MTB) in comparison with standard microbiological methods was assessed.

FINDINGS:
There were 33 patients with a mean age of 47.27 16.1 years. The most common presenting symptoms were irritative voiding symptoms (51.5%), flanks pain (27.2%), gross hematuria (9%) and suprapubic pain (9%). Laboratory findings in U/A were hematuria (75.8%) and pyuria (60.6%). IVU was abnormal in 61.5% of patients. Most common abnormalities were pyelocalyceal dilation (44%), ureteral stricture and hydroureter (37%) and multiple small calyceal deformities (25%). Of the 33 patients PCR for MTB was positive in 16 cases (48.5%). In patients with abnormal IVU, PCR was positive in 62.5%.

CONCLUSION:
A high index of clinical suspicion is necessary for diagnosis of GUTB. PCR is recommended for instant diagnosis and screening before further examination, it cannot be the only method in identification of GUTB.

KEY WORDS:
Contrast induced nephropathy, percutaneous coronary intervention